**Fig. 1**

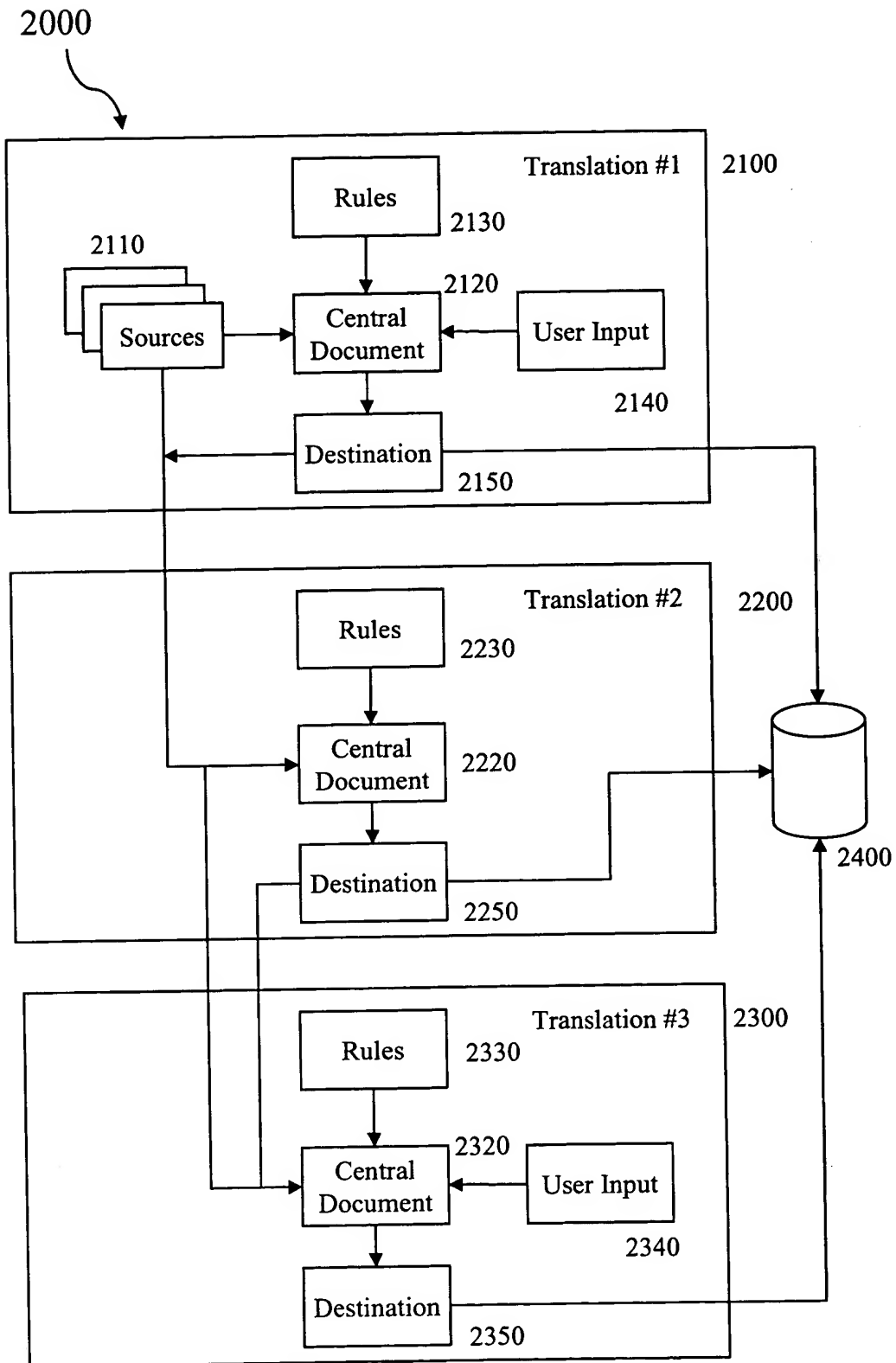


Fig. 2

3000

```
<?xml version="1.0"?>
<Order>
  <Item
    id='Turkey Sub'
    size="large"
    customer="Joseph Schmoe"
    price="3.50"/>
  <Item
    id='Diet Coke'
    size="medium"
    customer="Joseph Schmoe"
    price="0.90"/>
  <Item
    id="Fritos, 1.5 oz"
    customer="Joseph Schmoe"
    price="0.75" />
  <Item
    id='Hamburger'
    size="medium"
    customer="Betty Schmoe"
    price="2.50"/>
  <Item
    id='Fries'
    size="medium"
    customer="Betty Schmoe"
    price="0.99" />
  <Item
    id="Diet Coke"
    size="medium"
    customer="Betty Schmoe"
    price="0.90" />
</Order>
```

Fig. 3

4000

```

<xsl:transform version="1.0"
  xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
  xmlns:Prefs="Prefs">
  <xsl:output method="xml" encoding="UTF-8" indent="yes" />

  <Prefs:Prefs customer="Joseph Schmoe">
    <Item id="Turkey Sub">
      <detail description="no mayo"/>
      <detail description="no onions"/>
      <detail description="extra lettuce" price="0.50" />
      <detail description="extra tomato" price="0.50" />
    </Item>
    <Item id="Grilled Chicken Sandwich">
      <detail description="no mayo"/>
    </Item>
    <Item id="Diet Coke">
      <detail description="no ice"/>
    </Item>
  </Prefs:Prefs>

  <xsl:template match="/Order">
    <xsl:copy>
      <xsl:apply-templates select="Item"/>
    </xsl:copy>
  </xsl:template>

  <xsl:template name="CustomizeItem" match="Item">
    <xsl:param name="CustomerName" select="./@customer" />
    <xsl:param name="ItemID" select="./@id" />
    <xsl:param name="CustomerPrefs"
      select="document('')/*Prefs:*[@customer=$CustomerName]" />
    <xsl:param name="CustItem"
      select="$CustomerPrefs/Item[@id=$ItemID]" />
    <Item id="{@id}"
      customer="{@customer}"
      special="{count($CustomerItem)>0}"
      base_price="{@price}"
      price="{./@price + sum($CustItem/detail/@price)}">
      <xsl:apply-templates
        select="$ CustItem/detail" mode="ApplyDetails"/>
    </Item>
  </xsl:template>

  <xsl:template name="ApplyDetails" match="*" mode="ApplyDetails">
    <xsl:copy-of select="." />
  </xsl:template>
</xsl:transform>

```

Fig. 4

5000

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <Item id="Turkey Sub" customer="Joseph Schmoe" special="true"
    base_price="3.50" price="4.5">
    <detail description="no mayo" />
    <detail description="no onions" />
    <detail description="extra lettuce" price="0.50" />
    <detail description="extra tomato" price="0.50" />
  </Item>
  <Item id="Diet Coke" customer="Joseph Schmoe" special="true"
    base_price="0.90" price="0.9" >
    <detail description="no ice" />
  </Item>
  <Item id="Fritos, 1.5 oz" customer="Joseph Schmoe" special="false"
    base_price="0.75" price="0.75" />
  <Item id="Hamburger" customer="Betty Schmoe" special="false"
    base_price="2.50" price="2.5" />
  <Item id="Fries" customer="Betty Schmoe" special="false"
    base_price="0.99" price="0.99"/>
  <Item id="Diet Coke" customer="Betty Schmoe" special="true"
    base_price="0.90" price="0.9" >
    <detail description="extra ice" />
  </Item>
</Order>
```

Fig. 5

6000

```

<xsl:transform version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
xmlns:Preferences="Preferences">
<xsl:output method="xml" omit-xml-declaration="yes"
encoding="UTF-8" indent="yes" />

<xsl:key name="KeyOrderByCustomer" match="Item"
use="./@customer" />


<xsl:template match="/*">
<xsl:param name="CustomerFirstItem" select="//Item[count(
| key('KeyOrderByCustomer', ./@customer ) [1]) = 1]" />
<html>

<body >
<xsl:copy>
<xsl:apply-templates
select="$CustomerFirstItem"
mode="OrderByCustomer" />
</xsl:copy>
<form>Customer Comments<br/>
<input type="text"
name="'CustomerComments'" /><br/>
<input type="button"
name="'AcceptOrder'" value="Place Order"
onclick="SaveOrder.onclick();" />

</form>
</body>
<xml id="SaveOrder"
onclick="
for(i=0;i!=document.forms.length;i++)
document.forms.item(i).innerHTML='_';
OrderXML=document.body.outerHTML;
OrderXML=OrderXML.replace('id=SaveOrder','id
=&quot;SaveOrder&quot;');

OrderDoc=new XactiveXObject('Msxml2.DOMDocument.4.0');
OrderDoc.loadXML(OrderXML);
OrderDoc.save('C://Documents and Settings//hogamx//My
Documents//Patent//order.xml');
"/>
</html>
</xsl:template>

```

Fig. 6

7000

```

<xsl:template name="OrderByCustomer" match="Item"
mode="OrderByCustomer">
<xsl:param name="CustomerName" select="@customer" />
<div><h2>
<xsl:value-of select="@customer"/> Order
<table >
<xsl:apply-templates
select="//Item[@customer=$CustomerName]"
mode="ListAndCustomizeItem" />
</table>
</h2></div>
</xsl:template>

<xsl:template name="ListAndCustomizeItem" match="Item"
mode="ListAndCustomizeItem">
<xsl:param name="CustomerName" select="./@customer" />
<xsl:param name="ItemType" select="./@type" />
<xsl:param name="CustomerPreferences"
select="document(concat($CustomerName,
' Prefs.xml'))/Preferences" />
<xsl:param name="CustomerItemPreferences"
select="$CustomerPreferences/Item[@type=$ItemType]" />
<xsl:param name="ItemID"
select="concat($CustomerName,'item',position())" />
<tr><td>
<h3>
<xsl:value-of select="./@type"/>
</h3>
<Item type="{@type}"
name="{ $ItemID }"
customer="{@customer}"
special="{count($CustomerItemPreferences)>0}"
base_price="{@price}"
price="{./@price +
sum($CustomerItemPreferences/detail/@price)}">
<xsl:apply-templates select="$CustomerItemPreferences/detail"
mode="ApplyDetails">
<xsl:with-param name="ItemID" select="$ItemID" />
</xsl:apply-templates>
</Item>
</td></tr>
</xsl:template>

```

Fig. 7

8000

```

<xsl:template name="ApplyDetails" match="detail"
mode="ApplyDetails">
<xsl:param name="ItemID" select="'" />
<xsl:param name="DetailID"
select="concat($ItemID,'detail',position())" />
<detail description="{@description}"
id="{ $DetailID}" />
<tr><td></td><td><h4>
<xsl:value-of select="@description" />
<xsl:apply-templates select="." mode="Make-GUI">
<xsl:with-param name="DetailID"
select="$DetailID" />
</xsl:apply-templates>
</h4></td></tr>
</xsl:template>

<xsl:template name="Extra-GUI"
match="detail[starts-with(@description,'extra ')]"
mode="Make-GUI">
<xsl:param name="DetailID" select="'" />
<xsl:param name="extra-item" select="."/ @description" />
<form>
<input TYPE="radio" NAME="'HowMuchExtra'"
onclick="document.getElementById('{ $DetailID}').howmuchextra='
a little'"> a little
<xsl:value-of select="$extra-item" />
</input>
<input TYPE="radio" NAME="'HowMuchExtra'"
onclick="document.getElementById('{ $DetailID}').howmuchextra='
a little'"> some
<xsl:value-of select="$extra-item" />
</input>
<input TYPE="radio" NAME="'HowMuchExtra'"
onclick="document.getElementById('{ $DetailID}').howmuchextra='
a little'"> whole lotta extra <xsl:value-of select="$extra-
item" />
</input>
</form>
</xsl:template>

</xsl:transform>

```

Fig. 8



9/10

9000

**Joseph Schmoe Order**

**Turkey Sub**

no mayo

no onions

extra lettuce

☒ a little extra lettuce ☒ some extra lettuce ☐ whole lotta extra extra lettuce

extra tomato

☐ a little extra tomato ☐ some extra tomato ☒ whole lotta extra extra tomato

**Diet Coke**

no ice

**Fritos, 1.5 oz**

**Betty Schmoe Order**

**Hamburger**

**Fries**

no salt

**Diet Coke**

extra ice

☒ a little extra ice ☐ some extra ice ☐ whole lotta extra extra ice

Customer Comments

I love this place

Place Order

**Fig. 9**

10000

```

<Order xmlns:Preferences="Preferences">
  <Item type="Turkey Sub" name="Joseph Schmoeitem1"
    customer="Joseph Schmoe" special="true"
    base_price="5.5" price="6.5">
    <detail description="no mayo"
      id="Joseph Schmoeitem1detail1" />
    <detail description="no onions"
      id="Joseph Schmoeitem1detail2" />
    <detail description="extra lettuce"
      id="Joseph Schmoeitem1detail3"
      howmuchextra="some" />
    <detail description="extra tomato"
      id="Joseph Schmoeitem1detail4"
      howmuchextra="whole lotta" />
  </Item>
  <Item type="Diet Coke" name="Joseph Schmoeitem2"
    customer="Joseph Schmoe" special="true"
    base_price="0.9" price="0.9">
    <detail description="no ice"
      id="Joseph Schmoeitem2detail1" />
  </Item>
  <Item type="Fritos, 1.5 oz" name="Joseph Schmoeitem3"
    customer="Joseph Schmoe" special="false" base_price="0.75"
    price="0.75" />
  <Item type="Hamburger" name="Betty Schmoeitem1"
    customer="Betty Schmoe" special="false"
    base_price="2.5" price="2.5" />
  <Item type="Fries" name="Betty Schmoeitem2"
    customer="Betty Schmoe" special="true"
    base_price="0.99" price="0.99">
    <detail description="no salt"
      id="Betty Schmoeitem2detail1" />
  </Item>
  <Item type="Diet Coke" name="Betty Schmoeitem3"
    customer="Betty Schmoe" special="true"
    base_price="0.9" price="0.9">
    <detail description="extra ice"
      id="Betty Schmoeitem3detail1"
      howmuchextra="a little" />
  </Item>
</Order>

```

Fig. 10